WHAT IS CLAIMED IS:

1. An apparatus for analyzing performance of an asynchronous transfer mode (ATM) switch, comprising:

a traffic detecting portion for detecting traffic of constant bit rate connection type data and available bit rate connection type data input to the ATM switch installed in a communication network for processing a data circuit switching; and

a performance analyzing portion for calculating a processing performance with respect to the constant bit rate connection type data and the available bit rate connection type data according to information related to the detected traffic of the constant bit rate connection type data and the available bit rate connection type data.

2. The apparatus of claim 1, wherein the traffic detecting portion calculates and outputs to the performance analyzing portion arrival rates per second of the constant bit rate connection type data and the available bit rate connection type data.

3. The apparatus of claim 2, wherein the performance analyzing portion calculates a connection denial rate of the constant bit rate connection type data and an average delay time of the available bit rate connection type data from a value output from the traffic detecting portion, a selected average occupancy time of the constant bit rate connection type data in the ATM

switch, and an average data size of the available bit rate connection type data to be transmitted.

4. The apparatus of claim 3, further comprising:

a data storing portion for storing values analyzed by the performance analyzing portion;

an inputting portion for inputting processing performance values desired for the constant bit rate connection type data and the available bit rate connection type data; and

a performance determining portion for calculating a processing capacity of the ATM switch that satisfies parameters input from the inputting portion, by using the data stored in the data storing portion.

5. An asynchronous transfer mode (ATM) switching system, comprising:

an ATM switch installed in a communication network, for processing a circuit exchange between constant bit rate connection type data and available bit rate connection type data input through an inputting portion;

a traffic detecting portion for detecting traffic of the constant bit rate connection type data and the available bit rate connection type data input to the ATM switch;

a performance analyzing portion for calculating a processing performance with respect to the constant bit rate connection type data and the

available bit rate connection type data according to information related to the detected traffic of the constant bit rate connection type data and the available bit rate connection type data; and

a traffic control portion for controlling data processing of the ATM switch according to values analyzed by the performance analyzing portion.

6. The ATM switching system of claim 5, wherein the traffic detecting portion calculates and outputs to the performance analyzing portion arrival rates per second of the constant bit rate connection type data and the available bit rate connection type data.

7. The ATM switching system of claim 6, wherein the performance analyzing portion calculates a connection denial rate of the constant bit rate connection type data and an average delay time of the available bit rate connection type data from a value output from the traffic detecting portion, a selected average occupancy time of the constant bit rate connection type data in the ATM switch, and an average data size of the available bit rate connection type data to be transmitted.

8. The ATM switching system of claim 5, further comprising:

a data storing portion for storing values analyzed by the performance analyzing portion;

an inputting portion for inputting processing performance values desired for the constant bit rate connection type data and the available bit rate connection type data; and

a performance determining portion for calculating a processing capacity of the ATM switch that satisfies parameters input from the inputting portion, by using the data stored in the data storing portion.

9. A method for analyzing a performance of an asynchronous transfer mode (ATM) switch installed in a communication network for processing a data circuit exchange, comprising the steps of:

(a) detecting traffic of constant bit rate connection type data and available bit rate connection type data input to the ATM switch; and

(b) calculating a processing performance of the ATM switch with respect to the constant bit rate connection type data and the available bit rate connection type data according to information related to the detected traffic of the constant bit rate connection type data and the available bit rate connection type data.

10. The method of claim 9, wherein the information related to the detected traffic includes arrival rates per second of the constant bit rate connection type data and the available bit rate connection type data.

11. The method of claim 10, wherein the step (b) calculates a connection denial rate of the constant bit rate connection type data and an

average delay time of the available bit rate connection type data from a value output from a traffic detecting portion, a selected average occupancy time of the constant bit rate connection type data in the ATM switch, and an average data size of the available bit rate connection type data to be transmitted.